Montana SchoolSpeedTest Month:

Using The SchoolSpeedTest to Assess
Montana K-12 Internet Readiness For Digital Learning and Assessment

5.22.13

The Digital Learning Opportunity

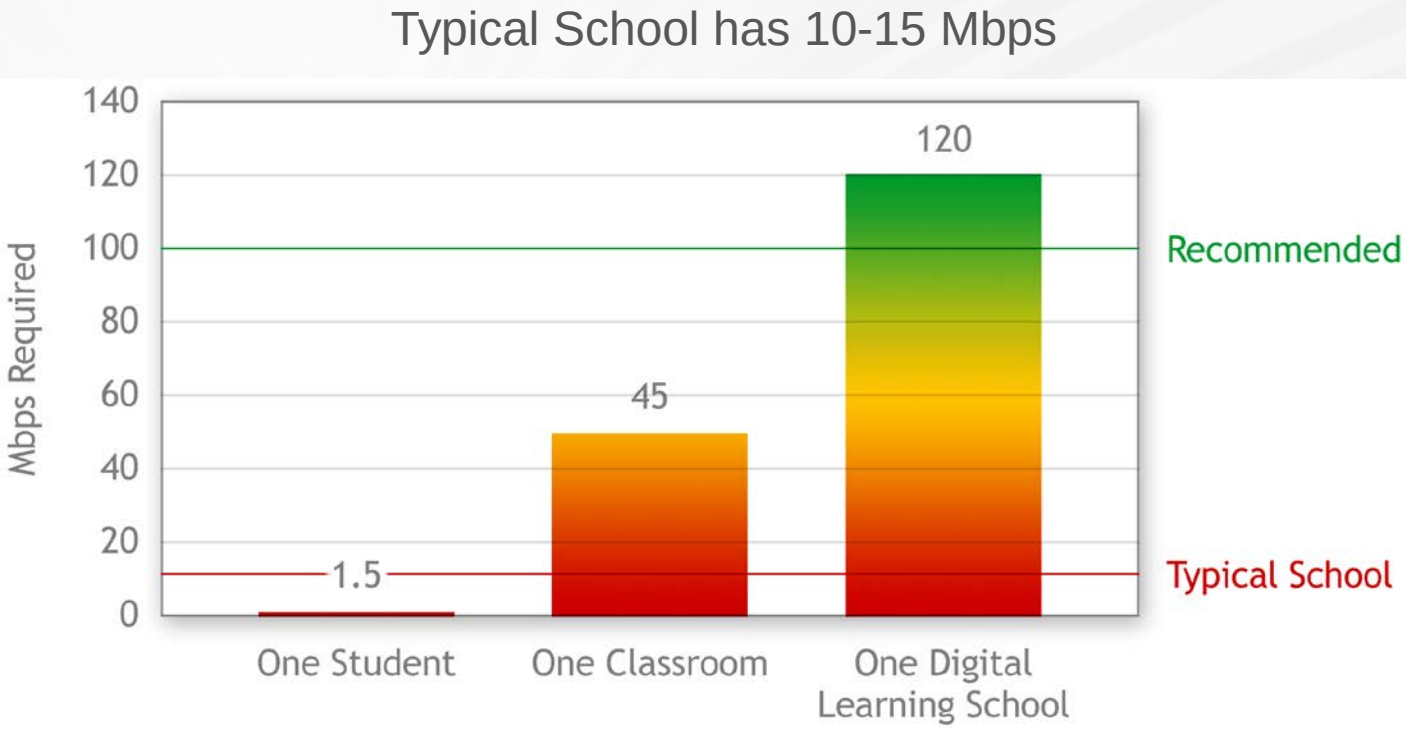
To Increase Teacher Effectiveness

- Personalize learning – no more teaching to the middle
- Reduce effective class size
- Enable more 1:1 and small-group teaching
- Reduce administrative time
- Increase effectiveness of professional development

To Enhance Equity and Engagement for Students

- Make teachers readily available to student needs.
- Bring experts and targeted content into the classroom.
- Ensure every student has access to the curriculum they need.
- Enable collaborative learning.
- Expand learning beyond the classroom.

Digital Learning Requires High Speed Internet

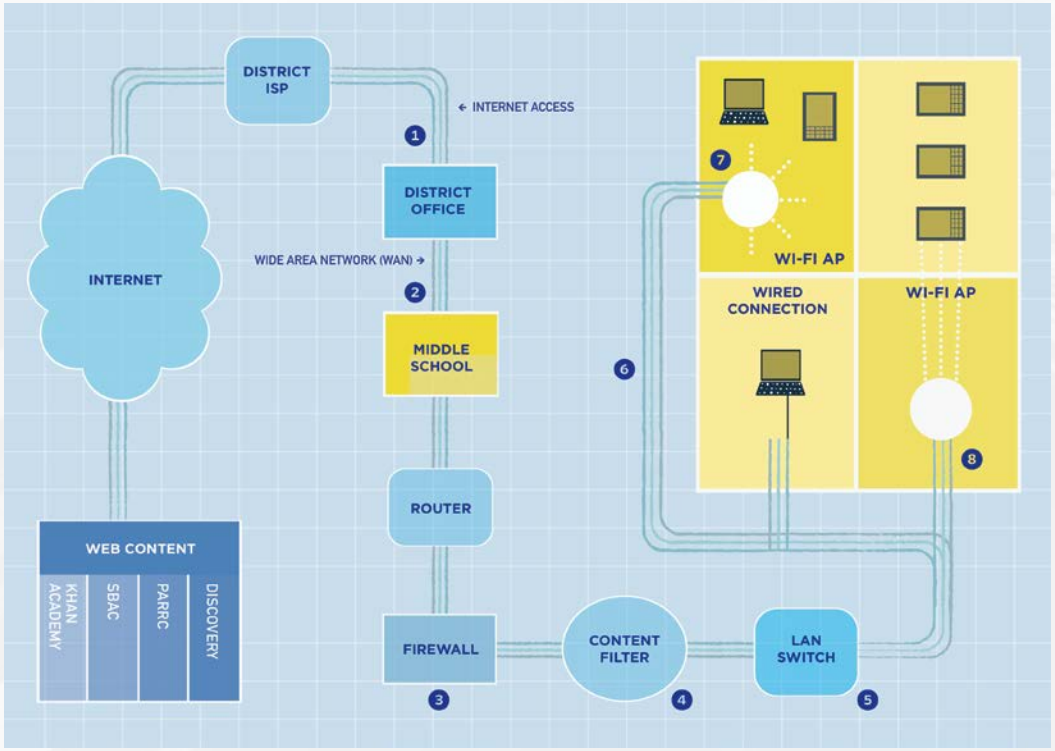


Assessment	Recommendation
Smarter Balanced Assessment Consortium (SBAC)	20 kbps/student minimum **50 kbps/student recommended**

How Much Bandwidth Is Available?

No one has actionable information on the available bandwidth currently available in the class.

Available bandwidth is impacted by many factors, including:



- Bandwidth Capacity
- Current technology use
- Wired/Wireless Hardware
- Content Filters
- Firewalls
- Student Usage Peaks

How Much Bandwidth Is Available

Without information about the real-world performance of Internet in the classroom environment, it is difficult to:

- Understand what online tools can be implemented in schools today.
- Prioritize spending for schools that need upgrading.
- Prepare schools for 2014-2015 Next Generation Assessments.

In order to manage costs and effectively upgrade K-12 school Internet to the capacity students and teachers will need, we must collect actionable data to identify bottlenecks and fix them.

Montana SchoolSpeedTest Month

What is the Montana SchoolSpeedTest Month?

An outreach partnership between MT OPI and EducationSuperHighway.

Goal of the Partnership:

- Measure the Internet speed at every K-12 school in Montana with the SchoolSpeedTest.
- Gather data about real-world performance of school Internet to current readiness of K-12 networks for Next Generation Assessments, 1:1 Device programs, and digital learning.
- Enable data-driven decision making in deploying best networking practices, enacting collective purchasing strategies, promote pricing transparency, and ensure effective deployment of technology funding.

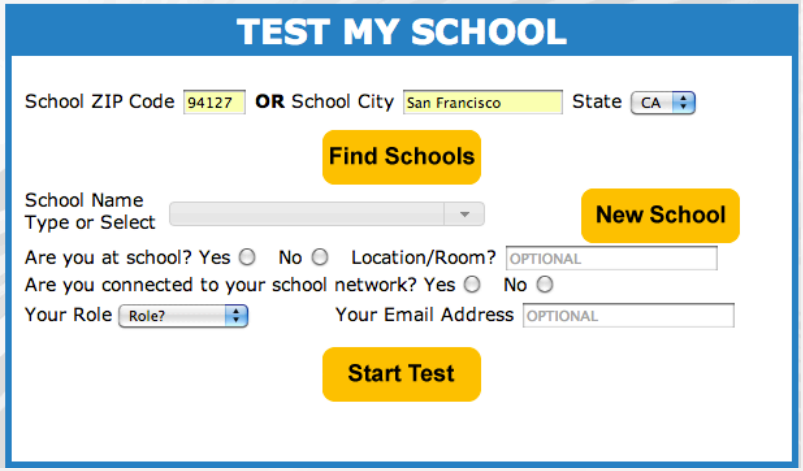
Test a School In Less Than a Minute

Our objective is to have every school run a minimum of 10 tests

- Results will vary depending on network activity when the test is run.
- Tests should be run at different times of the day and days of the week.
- More tests = more accurate assessment of available Internet speed.

Anyone connected to school's wired or Wi-Fi network can run the test

- Test can be run by teachers, students, tech coordinators, and other staff



Montana SchoolSpeedTest Month Plan

Outreach Strategy

- Contact district superintendents:
  - Inform them of Montana SchoolSpeedTest Month
  - Request that they ask their principals and other staff to participate in the process.
- Direct to School Personnel:
  - Utilize technology and education listservs and social media to create awareness and issue a call to action for the Test directly with school personnel.
- Influencing Organizations:
  - Enlist the support of influencing organizations to reinforce our message with superintendents, principals and technology coordinators.

Cobranded website – http://partners.SchoolSpeedTest.org/Montana.html

- EducationSuperHighway has created a co-branded website for teachers, principals and tech staff to take the Montana SchoolSpeedTest.
- This can be linked from district and state educational websites.

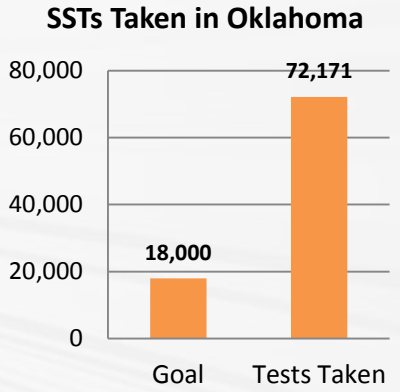
Oklahoma Case Study

During Oklahoma SchoolSpeedTest Month

Over 72,000 Tests
1482 Unique Schools
Over 96% of Districts Participated

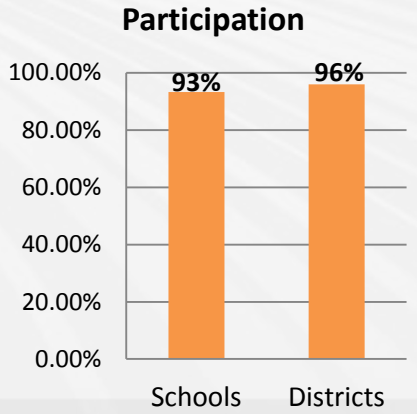
Key Success Factors

- Multiple emails from the Director of Learning Technology to Superintendents
- Support from District IT coordinators, with **emails and posts to listservs**
- **Webinar and Q+A** built district and school administrator and IT support directly
- Enlisting direct support from **Teacher Champions**
- Promoting school **accountability** with Thank You and "Tardy List" follow-ups



Key Learnings

- Small districts (<5,000 students) enthusiastic participants – most starved for information about the state of their Internet access & networks.
- Direct outreach needed to largest districts to encourage participation.
- Testing process has raised awareness that bandwidth is impacted by internal factors including wired and wireless networks – not just the size of the pipe.



The Data: What You'll Learn

Data Collected

- The available upload and download speed of a school's Internet connection in the classroom at points throughout the day.
- Browser type and operating systems from each tester.

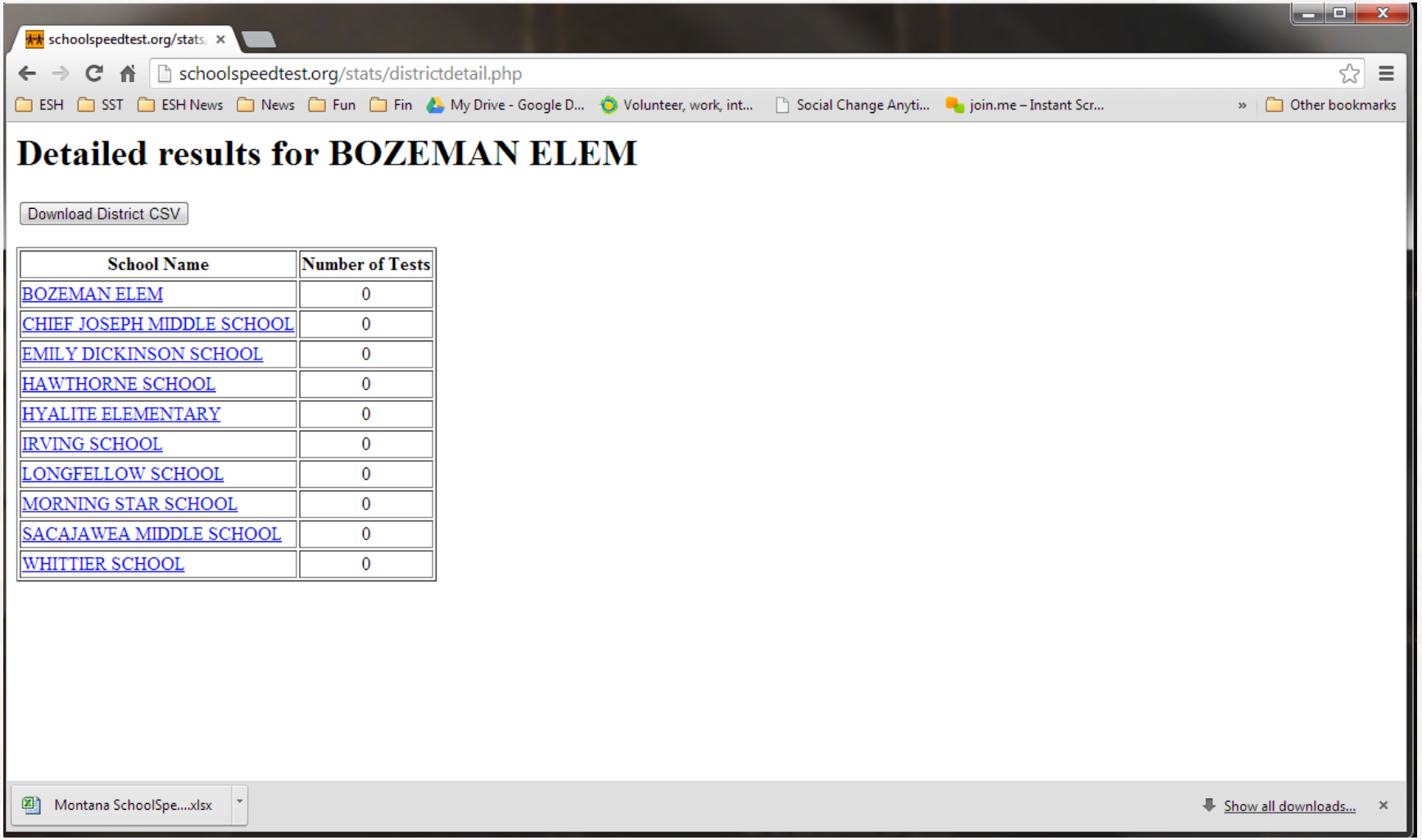
Results Provided

Testers:	Their measured upload & download speed
Principals:	Summary of all tests in their school
Superintendents:	Summary of all tests in their district by school

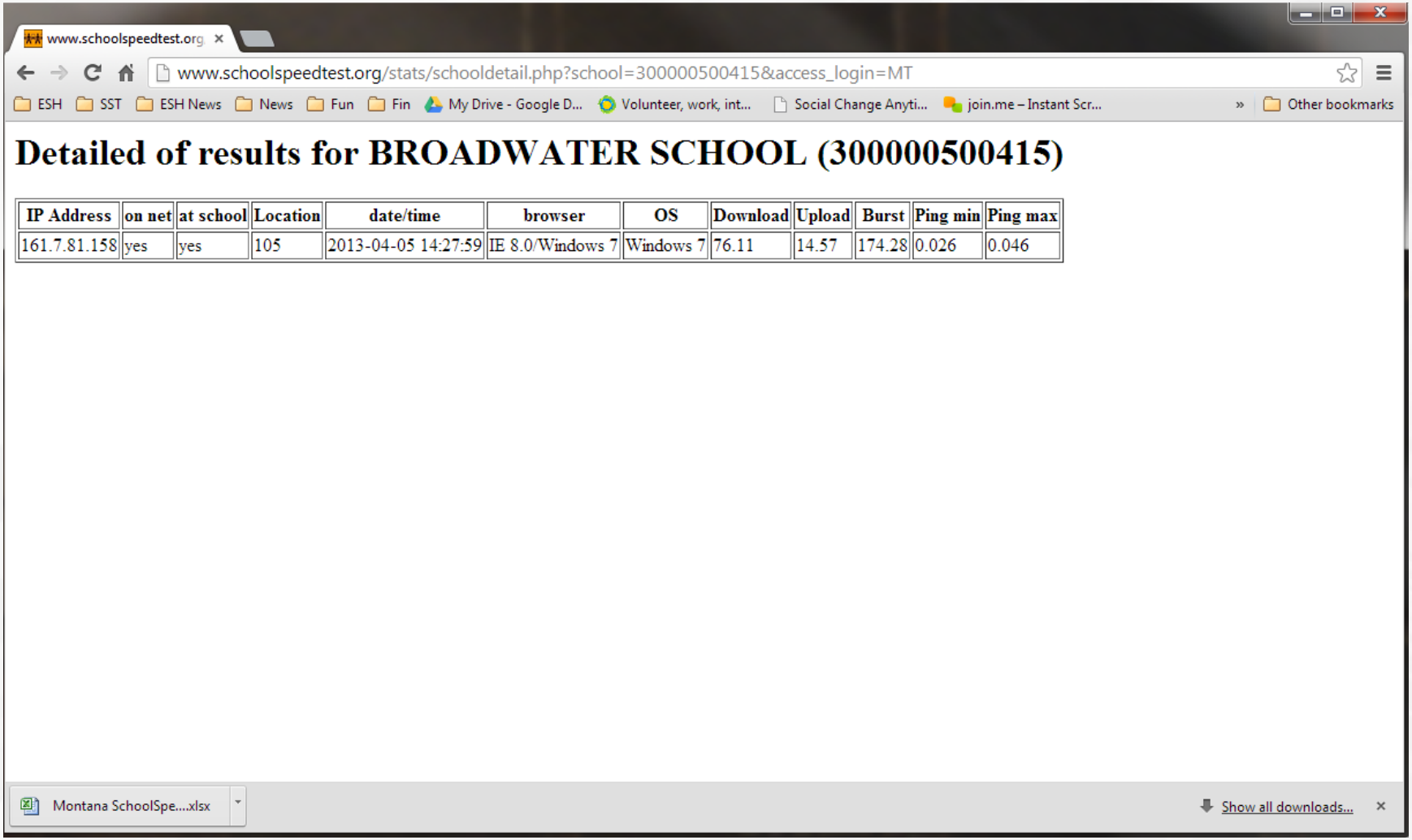
Summary results will be available about one month after the test is completed. Progress reports will be available during the test.

SchoolSpeedTest Reporting

Testing Progress Reporting

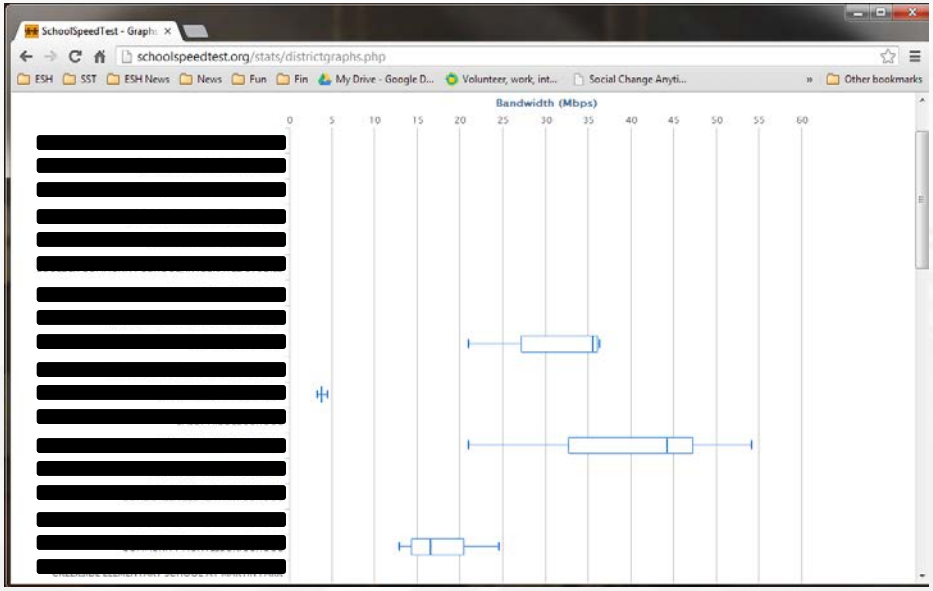


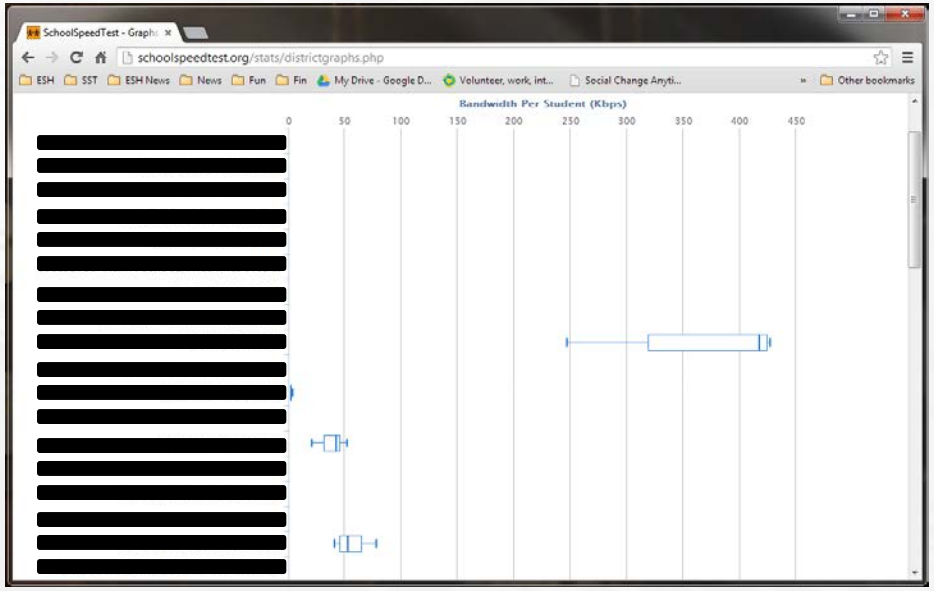
Testing Progress Reporting



IP Address	on net	at school	Location	date/time	browser	OS	Download	Upload	Burst	Ping min	Ping max
161.7.81.158	yes	yes	105	2013-04-05 14:27:59	IE 8.0/Windows 7	Windows 7	76.11	14.57	174.28	0.026	0.046

Sample Dashboard





What You Can Do With Your Data

- **Immediately begin to solve problems** by identifying bottlenecks at schools not performing as expected in the classroom by comparing SST results to contracted connectivity.

- **Prioritize hardware and connectivity upgrades** based on your data to make high-impact purchases that will improve connectivity for the largest number of schools in your state.

- **Make the case for increased investment** in Internet infrastructure in your state with evidence based advocacy using your SST data.

- **Identify schools requiring additional assessment** and deploy EducationSuperHighway's Network Snapshot Assessment tool to identify the specific bottlenecks impacting a school's network.

For More Information

Spencer Watson, Outreach Coordinator
spencer@EducationSuperHighway.org

EducationSuperHighway: **www.EducationSuperHighway.org**
SchoolSpeedTest: **www.SchoolSpeedTest.org**

Watch the Video:
http://www.educationsuperhighway.org/learn-more.html